TEAC



SERVICE MANUAL

V-670/V-570

STEREO CASSETTE DECK

Effective: September.1988 840324

1 SPECIFICATIONS

仕様

Track System 4-Track, 2-Channel Stereo Heads - V-670 3:1 Erase, 1 Record and 1 Playback (combination) - V-570 2:1 Erase, 1 Record/Playhack Type of Tape Cassette tape C-60 and C-90 (Philips type) Tape Speed 4.76 cm/sec (1-7/8 ips) Motors 2:1 DC servo capstan motor 1 DC reel motor Wow and Flutter 0.045 % (WRMS) Frequency Response (Overall, -20 dB) - V-670 20 - 21,000 Hz (25 - 20,000 Hz ±3 dB), Metal 20 - 20,000 Hz (25 - 19,000 Hz ± 3 dB), CrO₂ 20 - 18,000 Hz (25 - 17,000 Hz ±3 dB), Normal – V-570 25 - 20,000 Hz (30 - 19,000 Hz ±3 dB), Metal 25 - 18,000 Hz (30 - 17,000 Hz ± 3 dB), CrO₂ 25 - 17,000 Hz (30 - 16,000 Hz ±3 dB), Normal

Signal-to-Noise Ratio (Overall) 60 dB (3 % THD level, Weighted) 70 dB (Dolby B NR In, over 5 kHz) 80 dB (Dolby C NR In, over 1 kHz) Fast Winding Time Approximately 85 seconds for C-60 Line Input 60 mV, 50k ohms Outputs Line: 0.43 V for load impedance of 50k ohms or more Headphones: 8 ohms Power Requirements 120/220/240 V AC. 50/60 Hz (General Export model) 120 V AC, 60 Hz (U.S.A./Canada model) 220 V AC, 50 Hz (Europe model) 240 V AC, 50 Hz (U.K./Australia model) Power Consumption 15 W Dimensions (W x H x D)

Dimensions (W x H x D) 435 x 122 x 275.5 mm (17-1/8" x 4-13/16" x 10-15/16") Weight 4.0 kg (8.82 lbs) net

- Specifications were determined using metal tape except as noted.
- Improvements may result in specification or feature changing without notice.

NOTES:

Improvements may result in SPECIFICATIONS changes. Value of "dB" in the data refers to 0 dB (0.775 V), except where Specified.

CAUTION

△ Parts marked with this sign are safety critical components.

They must always be replaced with identical components — refer to the appropriate parts list and ensure exact replacement.

 Dolby Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
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注

- 1. 仕様は改善のため、予告なく変更することがあります。
- 2. 本マニュアルの 0 dB は0.775 V を基準としています。

注 意

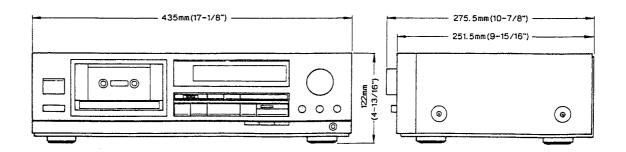
△印は安全重要部品です。交換する時は必ずティアック指 定の部品を使用してください。

- ドルビーノイズリダクションシステムは、ドルビー研究 所からの実施権に基づき製造されています。
- トルビー及び □は、トルビー研究所の登録商標です。

トラック形式	4 トラック 2 チャンネル・ステレオホニック方式
ヘッド構成	< V-670> 消去ヘット×1, 録音×1・再生×1 コンピネーション・ヘッド
- / 1 1 143 100,	〈V-57O〉消去ヘッド×1,録音/再生×1(2ヘッド)
使 用 テ ー プ	C-60, C-90タイプ カセット・テープ
テープ速度	4.8センチ
モーター	キャプスタン:DC サーボモーター×1
	リ ー ル:DC モーター×1
ワウ・フラッター	0.045%(W.RMS), 0.07%(W.Peak EIAJ)
	<v-670> 20Hz~21,000Hz(25Hz~20,000Hz±3dB, EIAJ): メタル</v-670>
	20Hz~20,000Hz(25Hz~19,000Hz±3dB, EIAJ):クローム
周 波 数 特 性	20Hz~18,000Hz(25Hz~17,000Hz±3dB, EIAJ):ノーマル
(総合)	⟨V-570⟩ 25Hz~20,000Hz(30Hz~19,000Hz±3dB, EIAJ):メタル
	25Hz~18,000Hz(30Hz~17,000Hz±3dB, EIAJ):クローム
	25Hz~17,000Hz(30Hz~16,000Hz±3dB, EIAJ): ノーマル
	60dB(NR OUT, 3% THDレベル, WTD)
総合SN比	70dB(ドルビーB NR IN 5kHz以上)
	80dB(ドルビーC NR IN 1kHz以上)
早 巻 時 間	C-60テーブで約85秒
入 力	ラ イ ン:60mV(入力インピーダンス50kΩ以上)
出力	ラ イ ン:0.43V(負荷インピーダンス50kΩ以上)
出 力	ヘットホン:2mW/8Ω
電 源	100V AC, 50/60Hz
消費電力	15W
外 形 寸 法	435(幅)×122(高さ)×275.5(奥行)mm
重 量	4.0kg
付 属 品	入出力コード 2本(1組)

※この仕様は特に表示した項目を除き、当社基準テーブを使用して測定したものです。

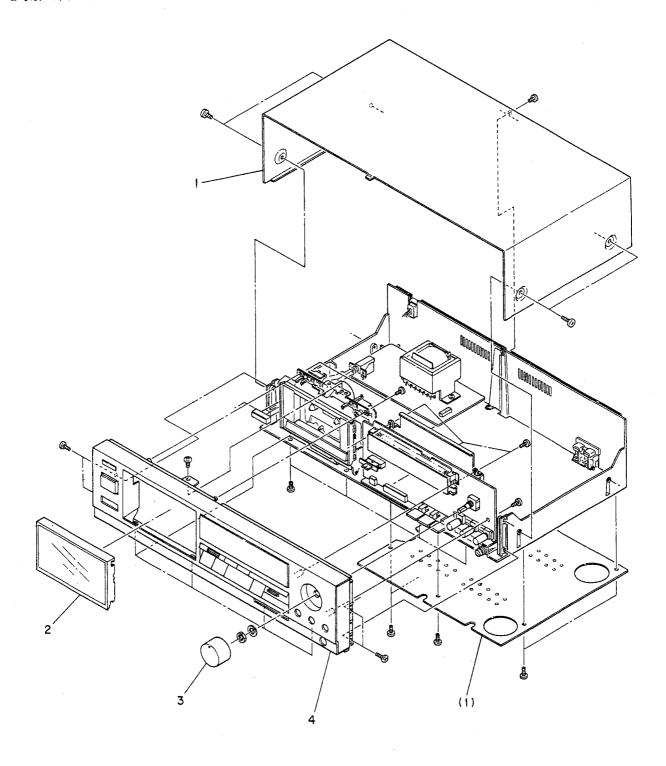
※仕様および外観は、改善のため予告なく変更することがあります。



2 REMOVAL OF EXTERNAL COMPONENTS

外装部品の外し方

Disassemble in number-order 番号順に外して下さい



3 PARTS LOCATION

部品配置図

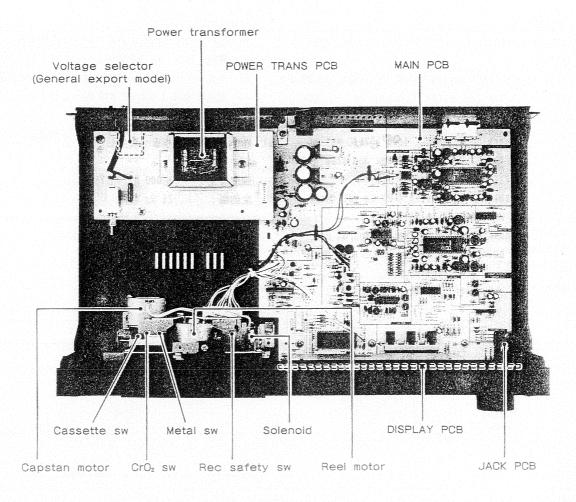


Fig. 3-1 Top view 上面図

MECHANICAL ADJUSTMENTS AND CHECKS

機構部の調整と確認

4-1 テープ・スピード

認する.

速度偏差:

変動幅:

す調整 VR を調整する.

1) 図4-1 のように周波数カウンタを接続する.

2) 電源を入れ、約 1分間ウォーミング・アップする.

3) テストテープ HTT-111(3kHz) を巻始めの条件で再生する.

4) 周波数値が 3,000~3,010 Hz となるよう, Fig.4-2 に示

5) 巻始めから巻終りまで再生し、速度偏差および変動幅を確

3,000 Hz ± 75 Hz

75 Hz 以内

4-1 TAPE SPEED

- 1) Connect a frequency couter to the deck as shown in
- 2) Simply press POWER switch to ON to rotate the motor, then continue the motor rotaion for approx. 1 minute for warm-up.
- 3) As soon as the warm-up finishes, load a TEAC HTT-111 test tape with a 3,000 Hz test tone and play the beginning of the test tape.
- 4) Adjust the variable resistor (Fig. 4-2) to get the adjustment value of 3,000 Hz to 3010 Hz.
- 5) In play mode, check that the following figures are obtained at the beinning and at the end of the tepe.

Speed devaiation:

3,000 Hz ± 75 Hz

Speed drifting:

within 75 Hz

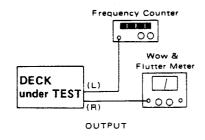


Fig. 4-1

Adj. VR Capstan motor

Fig. 4-2

4-2 WOW AND FLUTTER

(PLAYBACK METHOD)

Note: These measurements should be made at the beginning, middle, and the end of the tape.

- 1) Connect a wow-and-flutter meter to the deck as shown in Fig. 4-1.
- 2) Load and play a TEAC HTT-111 test tape.
- 3) Check that the readings on the wow-and-flutter meter are as follws.

Specifications: 0.12 % WRMS

4-2 ワウ・フラッタ

(再生法)

注: テープの巻始め、中間、巻終りで測定する.

- 1) 図4-1 のようにワウ・フラッタ・メータを接続する.
- 2) テスト・テープ HTT-111 を再生する.
- 3) ワウ・フラッタ値が下の規格内に入ることを確認する. 0.12 % WRMS 規格:

4-3 REEL TORQUE

 Load the cassette torque meter on the deck and read the pointer indication on the dial scale for each tape transport operation. The measured torque should be within the follwing specified values.

Specifications:

Take-up : 30 ~70 g⋅cm

(0.417~ 0.972 oz-inch)

Supply: 2.

2.5 ~ 6 g·cm (0.035~ 0.083 oz-inch)

F. F. /RE₩ : 80 ~ 180 g · cm

(1.111~ 2.500 oz-inch)

4-4 VOLTAGE CONVERSION

(General Export Hodels only)

- 1) ALWAYS DISCONNECT THE POWER LINE CORD BEFORE MAKING THESE ADJUSTMENTS!
- 2) Locate the vlotage selector on the rear panel.
- Using a regular screwdriver, turn the selector until the numerals corrsponding to the voltage requirements of your area appear.

4-3 リール・トルク

1) カセット型トルク・メータによる測定値が下表の範囲内であることを確認する.

デイクアップ・トルク: 30 ~70 g·cm バックテンション・トルク: 2.5 ~ 6 g·cm 早送り/巻戻しトルク: 80 ~ 180 g·cm

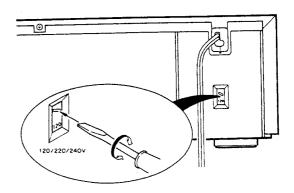


Fig. 4-3

5 ELECTRICAL CHECKS AND ADJUSTMENTS

アンプ部の確認と調整

5-1 PRECAUTIONS

- Before performing adjustments and checks clean and demagnentize the entire tape path.
- 2) Make sure the deck is prorerly set for the voltage in your locality.
- In general, adjustments and checks are made in the order of L-ch then R-ch. Double REF. Nos. indicate L-ch/R-ch. (Example; R51/R61)
- 4) 0 dB is referenced to 0.775 V. If an AC voltmeter that references 0 dB to 1 V is used, appropriate compensation should be made.
- 5) The AC voltmeter used in the procedures must have an input impedance of 1 M-ohmes or more.
- 6) Note the "Deck settings" at the top of each chart. The settings apply to all check for a specific chart unless explicitly stated otherwise.
- Sinse this deck has an automatic tape selector, be sure to use test tapes that have tape position detecting holes.
- Input terminals and measuring points at each step are the same as previous step, otherwise specified.

5-1 注意

- 1) アンプ部の調整・確認の前に、テープ走行系の消磁と清掃を行なってください。
- 2) 特に指定の無い限り、調整は L ch, R ch の順序で行なってください。
 - 尚 R51/R61 のように記されている回路番号は Lch/Rchを示します.
- 3) 0 dB= 0.775V
- 4) 測定に使用するレベル計の入力インピーダンスは 1 MΩ以上のものを使用してください.
- 5) 本機はテープ・セレクタ自動検出機構になっていますので テスト・テープは必ずテープ・ボジション検出孔のあるも のを使用してください。
- 6) 入力端子及び測定個所は各ステップに於いて特に明示されている場合を除き、直前のステップと同じです。

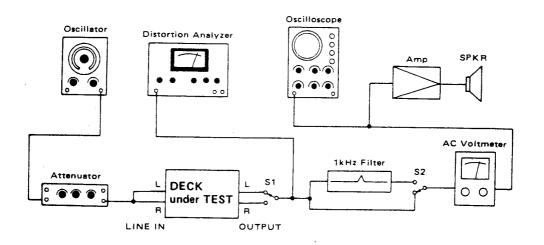
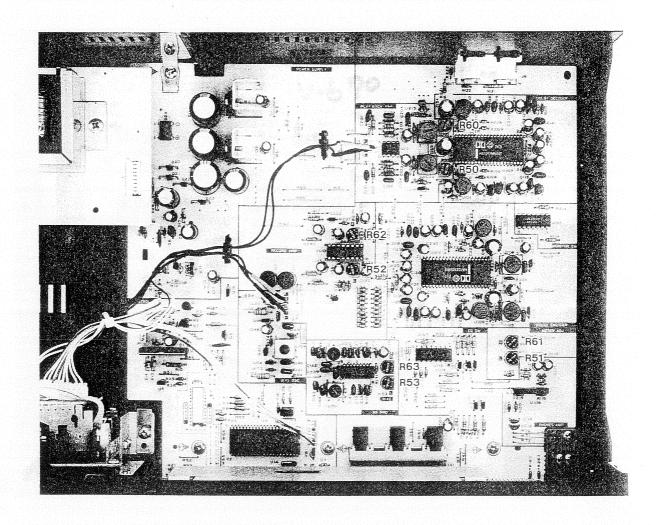


Fig. 5-1 Basic test setup 基本測定接続図

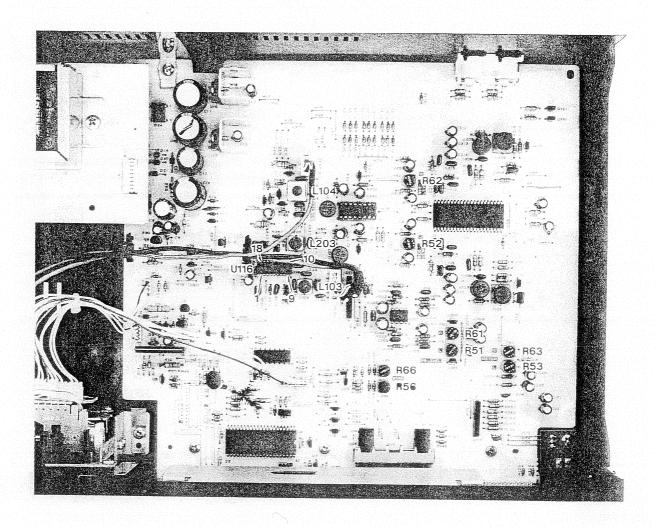
5-2. ADJUSTMENT LOCATIONS 調整個所 (V-670)



R50 / R60	Playback level	再生レベル
R51 / R61	Meter level	メータ・レベル
R52 / R62	Record level	録音レベル
R53 / R63	Bias setting	バイアス・セット

Fig. 5-2 Adjustment points 調整個所 (V-670)

5-3. ADJUSTMENT LOCATIONS 調整個所 (V-570)



R51 / R61	Playback level	再生レベル
R52 / R62	Record level	録音レベル
R53 / R63	Meter level	メータ・レベル
R56 / R66	Bias setting	バイアス・セット
L103 / L203	Step-up coil	ステップ・アップ・コイル
L104	Bias osc frequency	バイアス発振周波数

Fig. 5-3 Adjustment points 調整個所(V-570)

5-4. PLAYBACK PERFORMANCE 再生系

MPX FILTER sw. (V-670)

Deck settings

DOLBY NR sw.

Mode AOTO HONITOR sw. (V-670)

PLAY TAPE

OUT OUT TEAC test tapes:

HTT-150 : For Dolby level calibration

HTT-256

: For playback frequency response check for NORHAL : For playback frequency response check for HETAL and CrO₂ HTT-356

HTT-5511 : For S/N check for NORMAL

				····	
ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (or CHECK) 調整個所	MEASURING POINT, RESULT 測定個所・調整値	REMARKS 備 考
1. REC · PLAY head azimuth 録・再ヘッド	th Connection Fig 5-4	HTT-256 or HTT-356 (10 kHz)	Azimuth screws of R·P head 録・再ヘッドの アジマス調整ネジ V-670 Fig.5-5 V-570 Fig.5-6	OUTPUT (L/R): Maximumx output at L & R-ch's. L-R 各 ch 共 最大出力	
アジマス		HTT-150	Check	OUTPUT (L/R): Phase: within 45° 位相: 45°以内	Fig. 5-7
2. Playback output lev 再生出力レ		HTT-150	V-670 R50/R60 V-570 R51/R61	OUTPUT (L/R) : -5 dB (436 mV)	
3. Heter leve setting メータ・レ セット	Same as above EL	MTT-150	V-670 R51/R61 V-570 R53/R63	PEAK LEVEL meter (L/R) : 0 dB (RED) lit 0 dB (赤)点灯	
4. Playback frequency response 再生周波数	Same as above 同上 特性	MTT-256 (MTT-356)	Check	OUTPUT (L/R) : Standerd 規格:Fig.5-8	
5. Playback S/N ratio		MTT-5511 (fully demagnetized using bulk tape eraser)	Check	OUTPUT (L/R) : S/N 45 dB min. (120 \(mu\)) 46 dB min. (70 \(mu\))	
再生 S/N	比	(バルク・イレーサで 充分消磁されたもの)		-5 dB (436 mV) is referenc 基準レベン以ま -5 dB (436 mV	

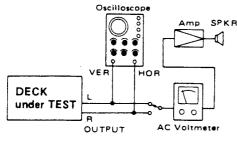


Fig. 5-4 Test setup for azimuth check 位相測定接続図

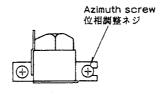


Fig. 5-5 V-670

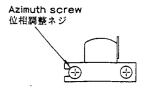


Fig. 5-6 V-570

135° 0° (in phase) 45° 90° 180° (out of phase) (同位相) (逆位相)

Fig. 5-7 Confirming phase relationship 位相

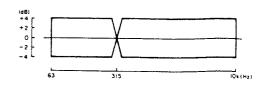


Fig. 5-8 Playback frequency response 再生周波数特性

5-5. MONITOR PERFORMANCE モニター系

Deck settings

MODE
MASTER REC LEVEL cont.
PRESET cont. L/R

RECORD/PAUSE Maximun REF position SOURCE

AUTO MONITOR SW. (V-670) DOLBY NR SW. MPX FILTER SW. (V-670)

OUT

	ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (or CHECK) 調整個所	MEASURING POINT, RESULT 測定個所・調整値	REMARKS 備 考
6.	Min. LINE input level ライン 最小入力レベル	Connection : Fig. 5-1	LINE IN (L/R) : 400 Hz / -19 dB (86.9 mV)	Check	OUTPUT (L/R) : -5 dB ±3 dB (308 mV ~ 615 mV)	
7.	7. Specified LINE input level		LINE IN (L/R) : 400Hz/-9dB(275mV)	PRESET cont. (L / R)	OUTPUT (L/R) : -5 dB (436 mV)	
	LINE 規定入力 レベル		After adjusting. do not move the PRESET cont. (L/R).(Specific position) 調整後は PRESET つまみを動かさないこと.			tion)
8.	Meter level メータ・レベル	Connection : Fig.5-1	LINE IN (L/R) : 400Hz/-9dB(275mV)	Check	REAK LEVEL meter (L/R) : 0 dB (RED)	
9.	PHONES output level PHONES 出力レベル	Connection : Fig.5-9 PHONES LEVEL cont. : Max.	LINE IN (L/R) : 400Hz/-9dB(275mV)	Check	PHONES: At each channel 各チャンネルで -15 dB ±3 dB (97.5 mV~ 195 mV)	8Ω load

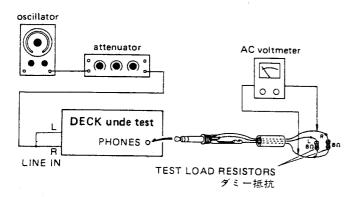


Fig. 5-9 Test setup for PHONES check ホーン出力測定接続図

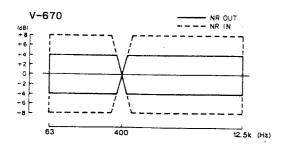


Fig. 5-11 Overall frequency response 録再周波数特性

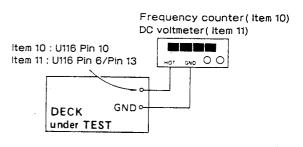


Fig. 5-10 Test setup for bias osc. frequency adjustment バイアス発振周波数調整用接続図

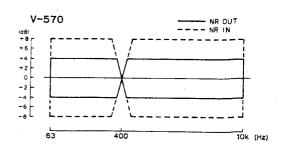


Fig. 5-12 Overall frequency response 録再周波数特性

5-6. RECORDING PERFORMANCE 録音系

Deck settings

Mode

: Rec/Play (Item 10,11) : Record then Playback (Item 12 \sim 22)

MASTER REC LEVEL cont. : Maximum
PRESET (L/R) cont. : Specified position(規定位置)
AUTO MONITOR sw. (V-670) : TAPE

: OUT

TEAC recording test tapes MTT-5571 : For METAL MTT-5561 : For CrO₂ MTT-5511 : For NORMAL

DOLBY NR sw.

MPX FILTER sw. (V-670) BIAS FINE cont. : OUT : REF (center) position

	DINO	INE CONT. : KEF (CO	nter) position		mil-55[i : F0f	11014 1112
	ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (or CHECK) 調整個所	MEASURING POINT, RESULT 週定個所·調整値	REMARKS 備 考
10.	Bias osc frequency バイアス 発振周波数 (V-570 only)	Connection : Fig.5-10 Tape : MTT-5571 Mode : REC / PLAY	No signal	L104	U116 pin10 : 100 kHz ±2 kHz	
11.	Step-up coil	·		L103/L203	U116 pin 6 / pin 13 : Minimum DC voltage DC 電圧最小値	*
	ステップ・アップ コイル (V-570 only)	Same as above 同上	No signal	set to the max	ng of the voltmeter is negat Limum negative voltage. ス電圧を指示する場合はマイナ する。	
12.	Record bias バイアス・セット	Connection : Fig. 5-1 TAPE : HTT-5571 BIAS FINE cont.: REF position	LINE IN (L/R): 400 Hz and 10 kHz alternately/ 交互信号/ -42 dB (6.15 mV)	V-670 R53/R63 V-570 R56/R66	OUTPUT (L/R) Equal output level (reco playback) between 400 Hz 400 Hz と10 kHz の録再 くなること.	and 10kHZ.
13.	BIAS FINE	Same as above	LINE IN (L/R) : 10 kHz / -42 dB (6.15 mV)	BIAS FINE cont. Min.←→Max.	OUTPUT (L/R) : Check Recorded signal level 録音された信号のレベル 5 dB minimum (V-670) 3 dB minimun (V-570)	変化
		After checking, set the BIAS FINE cont. to REF (center) position. チェック後 BIAS FINE つまみを REF (センター) 位置に戻しておくこ				
1/1	Record level	Connection : Fig.5-1 TAPE : MTT-5511	LINE IN (L/R) :	R52 / R62	Output (L/R) : Output level (record and 發再出力 -8 dB (playbak) 300 mV)
14.	Record level 録音レベル Connection: Fig. 5-1 TAPE: HTT-5571, HTT-5561 DOLBY NR sw.: IN / OUT, B / C		Check	Output (L/R): Output level (record and 録再出力 -10 dB~ -6 dB (245 mV		
15.	Total harmonic distortion 総合歪率	Connection : Fig.5-1 TAPE : HTT-5571 TAPE : HTT-5561 TAPE : HTT-5511	LINE IN (L/R) : 400 Hz / -12 dB (195 mV)	Check •	OUTPUT (L/R) : 2.5 % or less 2.5 % 以下	
16.	Overall frequency response 録再周波数特性	Connection : Fig.5-1 TAPE : HTT-5571 TAPE : HTT-5561 TAPE : HTT-5511	LINE IN (L/R) : 40 Hz ~12.5 kHz/ -42 dB (6.15 mV)	Check	OUTPUT (L/R) : Standard Fig.5-11 (V-6 Standard Fig.5-12 (V-5	•

	ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (Or CHECK) 調整(国所	MEASURING POINT, RESULT 測定個所・調整値
17.	17. Overall S/N ratio 総合S/N 比	Connection : Fig.5-1 Tape : MTT-5571	No signal	Check	OUTPUT (L/R) : METALL 45 dB min. CrO2 45 dB min. NORMAL 44 dB min.
	発振周波数 (V-570 only)	Tape : MTT-5561 Tape : MTT-5511	! 無 信号 		400 Hz / -8 dB (300 mV) is the reference level. 基準レベルは 400 Hz / -8 dB (300 mV)
18.	Erase efficiency	Connection : Fig.5-1 but engage 1-kHz filter 1-kHz フィルター使用 Tape : MTT-5571	LINE IN (L/R) 1 kHz / +1 dB (0.869 V)	Check	OUTPUT (L/R) : 65 dB min. ratio
	消去効果	Record a 1 kHz signal. Erase t between the 1 kHz portion and 録音部分を再生したときのレベル	the erased portion.		and play to find the difference の出力レベルとの差を測定.
19.	REC MUTE	Same as above 同 上	Same as above 同上	Check	OUTPUT (L/R) : 65 dB min. ratio (V-670) 63 dB min. ratio (V-570)
	function REC MUTE 効果	Record a 1 kHz signal. Push RE portion and the "rec mute" por 1 kHz 信号を録音し,途中で REC このテープを再生し,1 kHz 部分	tion. C MUTE 釦を押して無信号	録音部分を作る。	o find the difference between the 1-kHz
20.	20. Channel	Same as above 同上 .	LINE IN: Lch 1-kHz/-9dB (275mV) Rch No signal 無信号	Check	OUTPUT (R) : 30 dB min. ratio
	separation チャネル・ セパレーション	Set the deck to record mode. r (L-ch) and "no signal" porti 録音後,再生して 1-kHz 録音部	ion (R-ch).		etween the 1-kHz recorded portion)出力レベル差を測定.
Change the above connection and check reverse operation also. L-ch と R-ch を入れ替えた場合についてもチェックすること。					
21.	21. Adjucent track crosstalk トラック間	Connection : Fig.5-1 but not connect LINE (L) and output (L) L ch の入出力の接続不要	LINE IN: L ch No signal 無信号 R ch 125Hz/-9dB (275mV)	Check	OUTPUT (R) : 40 dB min. ratio
	クロストーク	Record a 125 Hz signal on R-ch Check leakage level against th R-ch トラックに 125 Hz 信号を 次にテープを反転し、再生したと	ne output reference of 録音し、その再生出力を	previously recorde 基準レベルとする.	ed portion.

PARTS LIST SECTION

NOTES:

- As regards the resistors and capacitors, refer to the circuit diagrams and the PCB ass'y drawings included in this brochure.
- Parts marked with this sign are safety critical components. They must always be replaced with identical components refer to the appropriate parts list and ensure exact replacement.

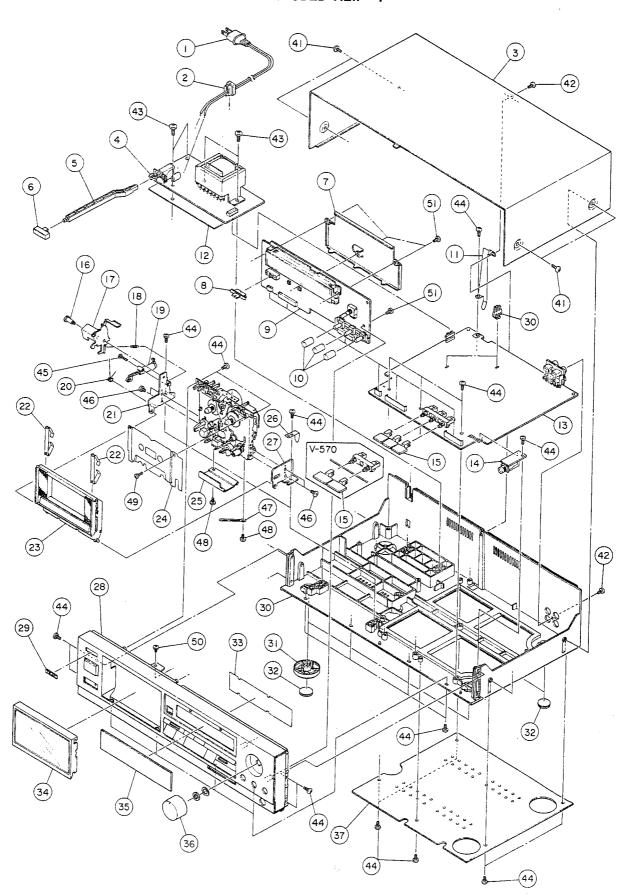
注 意

- 標準の抵抗、コンデンサーは省略してあります。回路図及び基板図を参照してください。
- 2. △印は安全規格重要部品です。交換するときは必ずティアック指定の部品を使用して下さい。

6 EXPLODED VIEWS AND PARTS LIST

分解図とパーツ・リスト

EXOLODED VIEW - 1



EXPLODED VIEW-1

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
i- I.	Δ*5128027000 Δ*5350010800 Δ*5350011700 Δ*5128047000 Δ*5350008300	CORD, AC [J] CORD, AC UL SPT-1 [US, C, GE] CORD, AC CEE CLASS-2 [E] CORD, AC [UK] CORD, AC ASS [A]	
l- 2 l- 3 l- 4	*5801127500 *5200257300 *5200257310 *5200257320 *5200257330 *5200257340	BUSHING 2271 BONNET P.TRANS POB ASSY [J] P.TRANS PCB ASSY [US,C] P.TRANS PCB ASSY [GE] P.TRANS PCB ASSY [E] P.TRANS PCB ASSY [UK] P.TRANS PCB ASSY [A]	Ref. pages 21 & 24
1- 5 1- 6	*5801125100 5800752 3 00	ROD, BUTTON, POWER B	
1- 7 1- 8 1- 9	5801127000		Ref. pages 19 & 22 Ref. pages 20 & 23
- - 2 - 3	*5801125900 *5801149800 *5200257000 *5200257500 *5200257200 *5200257700	SHEET, TRANSFORMER [US] MAIN PCB ASSY (V-670) MAIN PCB ASSY (V-570) JACK PCB ASSY (V-670)	Ref. pages 19 & 22 Ref. pages 20 & 23 Ref. pages 19 & 22 Ref. pages 20 & 23
1-15 1-16 1-17	5801124700 5801124600 *5801125300 *5801126300	BUTTON(A), PUSH (V-570) SCREW,	
1-18 1-19 1-20 1-21 1-22	*5801 25800 5730030600 *5800838300 *5801 26400 *5800603801	SPRING, DOOR R	
1-23 1-24 1-25 1-26		SHIELD PLATE, HEAD	
-27 -28 -29 -30	*5801126900 *5801127700 *5801127600 *5720175500	PANEL ASSY(B), FRONT (V-670) PANEL ASSY(A), FRONT (V-570)	
-3 -32 -33 -34 -35	*5800620400 *5801124900	FILTÉR, DISPLAY LID, CASSETTE	
1-36 1-37	5801126800 *5801127400	KNOB(2) COVER, BOTTOM	

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [GE]:GENERAL EXPORT [J]:JAPAN [A]:AUSTRALIA

EXPLODED VIEW-I

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1-41 1-42 1-43 1-44 1-45	*5800758000 *5783543010 *5783604012 *5783603010 *5783072012	SCREW, BIND T TITE M3X10(BLK NI) SCREW, BIND P TITE M4X12 SCREW, BIND P TITE M3X10	·
I-46 I-47 I-48 I-49 I-50	*5783003004 *5786713000 *5730017600 *5783542612 *5730017600	CLIP, HARNESS 3.0X9.1X50 SCREW, BIND BR TITE M3X6 SCREW, BIND P TITE M2.6X12(BLK NI)	
1-51	*5783603012	SCREW, BIND P TITE M3X12	

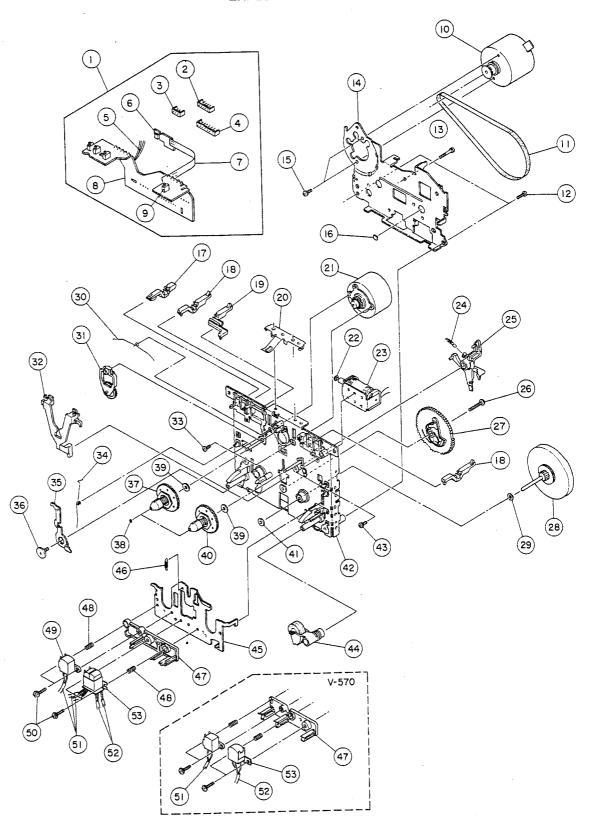
INCLUDED ACCESORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS	
	*5700106300 *5700106400 *5700106500 *5350014500	INSTRUCTION MANUAL [US]		

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [GE]:GENERAL EXPORT [J]:JAPAN [A]:AUSTRALIA

Parts marked with *require longer delivery time.

EXPLODED VIEW - 2



EXPLODED VIEW-2

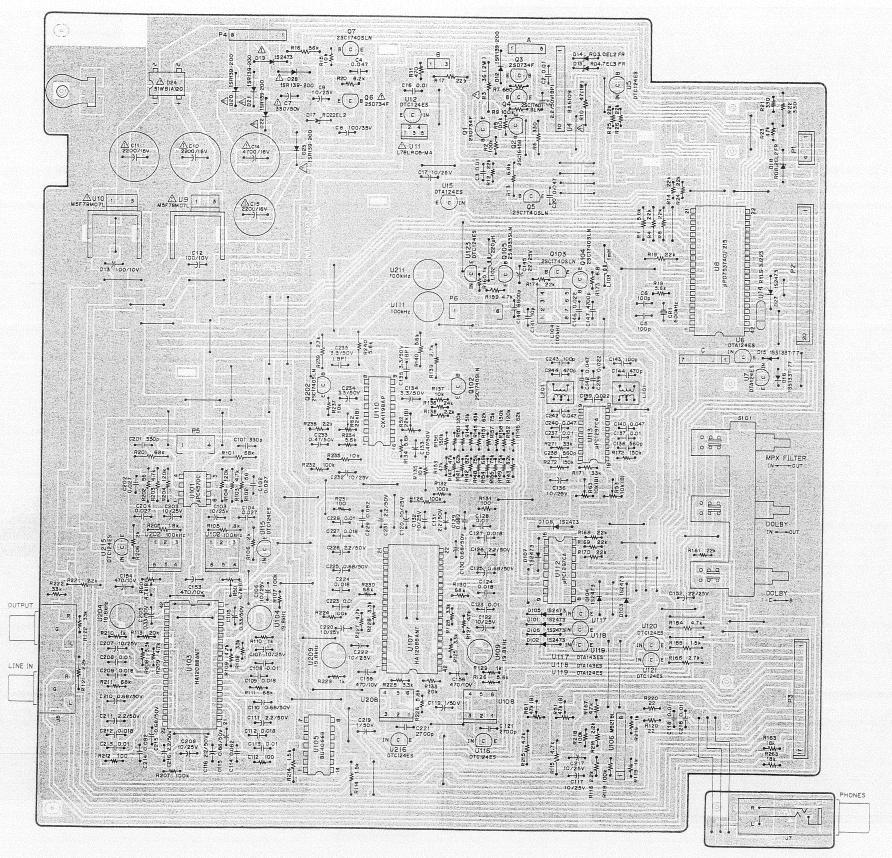
REF. NO.		DESCRIPTION	REMARKS
	PARTS NO.	DESCRIPTION	REMARKS
2- 1 2- 2 2- 3 2- 4 2- 5	*5761769400 *5761769600 *5761749300 *5761749100 *5761769700	B7B-EH UY15B-16	
2- 6 2- 7 2- 8 2- 9 2-10	*5761748800 *5761748900 *5761769500 5761748700 5761747800	GP 2S09B JUMPER WG46V-06 BOARD FP!7E-7! SW.,PUSH MOTOR,DC W/PULLEY	·
2-11 2-12 2-13 2-14 2-15		BELT, MAIN FF 5R- SCREW, WAVE 2.6X8 UG 2H- 4 SCREW, S TITE M2.6X23.5 UG 7H- F/W BKT FC47D- 3 SCREW, PAN 2.6X3.5	
2-16 2-17 2-18 2-19 2-20	*5761749600	SPACER LEVER, PACK LEVER, RECORD LEVER, METAL SPRING, CASSETTE PRESS	
2-21 2-22 2-23 2-24 2-25	5761745800 5761746300 5761746200 *5761768800 5761769000	MOTOR, REEL DC PIN, SOLENOID PKA16146 SPRING, PLAY ARM FK22G-14 ARM(F), PLAY FD38M-22	
2-26 2-27 2-28 2-29 2-30	*5761771000 5761768700 5761747200 *5761689200 *5761745400	SCREW, TAP TITE 2X15 UG17L-11 CAM GEAR(F) FD38P-16 F/W ASSY POLYSLIDER FJ111-30 SPRING, HOLD	
2-31 2-32 2-33 2-34 2-35	5761745300 *5761745700 *5761745900 *5761768600 *5761768500	IDLER ASSY HOLD LEVER(C) SCREW, PAN 2.6X6ZN SPRING(L), EJECT FK22P-16 ARM(L), EJECT FC39S-33	
2-36 2-37 2-38 2-39		SCREW, REEL TABLE ASSY (V-670) REEL TABLE ASSY (V-570) POLYSLIDER POLYSLIDER	
2-40 2-41 2-42 2-43 2-44	5761686400 *5761689700 *5761769800 5761768300	REEL TABLE ASSY,T. WASHER, OIL SEAL FJ141-11 CHASSIS, MECHANISM F112-110 SCREW, PAN 2.6X4 ZN FG114-15 PINCH ROLLER ASSY FR20L-21	
2-45 2-46 2-47 2-48	*5761768100 *5761744800 *5761770400 *5761768100 *5761767500	BASE, HEAD FC38N-D3 SPRING, HEAD BASE SPACER, 3 HEAD FD44N-II (V-670) BASE, HEAD FC38N-D3 (V-570) SPRING, AZIMUTH FK2IU-II	
2-49 2-50 2-51 2-52	5761767900 *5761767400 *5761770300 *5761767800 *5761770100 *5761767600	ERASE HEAD FU!92-11 SCREW, F LOCK FG!37-18 CONNECT., WIRE WH51L-05 (V-670) CONNECT., WIRE WH51K-03 (V-670) CONNECT., WIRE WH47F-06 (V-570)	
2-53	5761770200	H-2371 FUI9C-II (V-670) HAYEH 4406 A FUI7A-IIB (V-570)	

7 PC BOARDS AND PARTS LIST

V-670

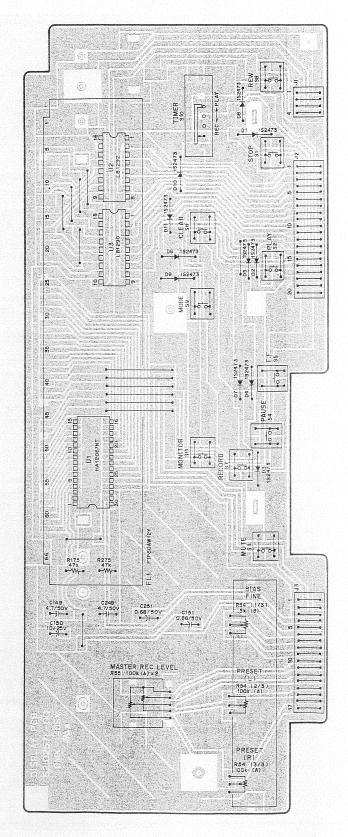
基板図とパーツ・リスト

MAIN PCB ASSY

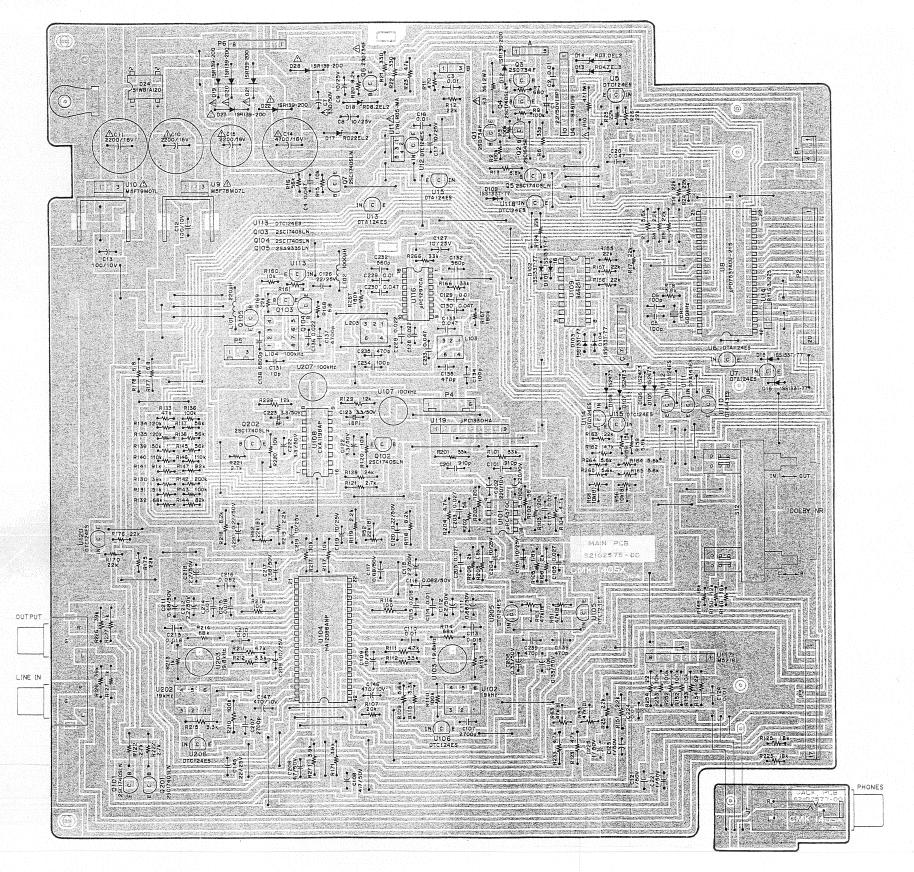


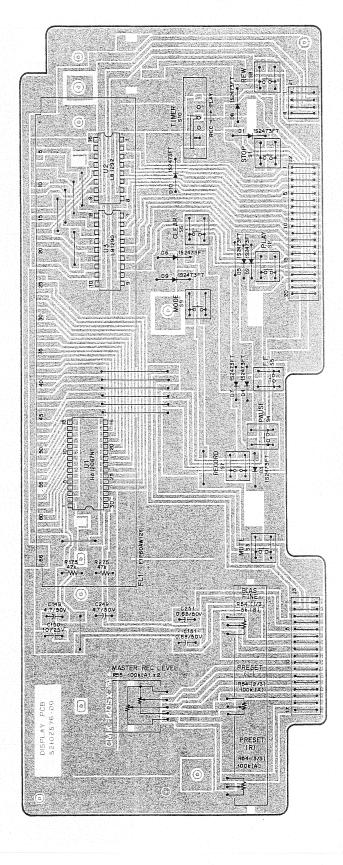
JACK PCB ASSY

DISPLAY PCB ASSY



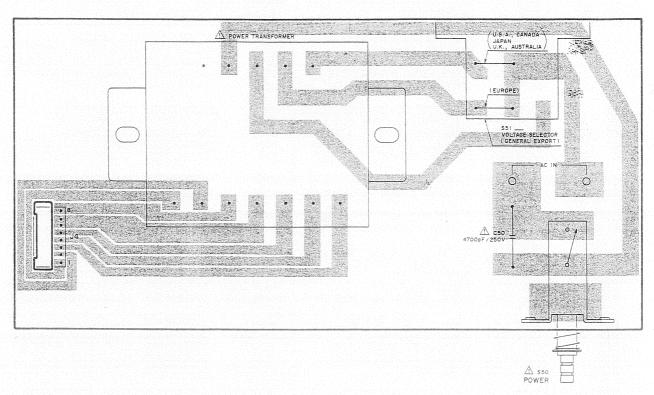






JACK PCB ASSY

POWER TRANS. PCB ASSY



NOTES

- 1. PC boards are shown viewed from foil side.
- 2. Resistor values are in shms (k=kilo-ohms M=megohms).
- 3. All capacitor values are in microfarads (p=picofarads).

注

- 1. 基板図はパターン面が示されています。
- 2. 抵抗の単位は $\Omega(k=k\Omega, M=M\Omega)$ です。
- 3. コンデンサの単位は μ F(pF)です。

MAIN PCB ASSY (V-670)

REF.NO. PARTS NO. DESCRIPTION *5200257000 MAIN PCB ASSY (V-670) *5210257000 MAIN PCB (V-670) 5800990100 HEAT SINK 5783603008 SCREW, BIND P TITE M3X8 CONDENSER CC 16V 10000PF 10% C2 12907112 C3 12907112 CONDENSER CC 16V 10000PF 10% 5173435000 C., CERAMIC 0.047UF 50V Z C4 6 12907088 CONDENSER CC 50V 100PF 5% C5 **-**C C., ELEC. 330UF 50 V M AS VT C., ELEC. 2200UF/16V M PS △5260425510 C7 CIO -C II 45260308600 C., ELEC. 4700UF 16V C., ELEC. 2200UF 16V M AS VF C., POLY. 560PF/100V J VT △5260428110 △5260427010 C15 C138-C238 5263107220 C., CERAMIC 10PF 50V D VFT 5173445000 C141 C., POLY. 100PF/100V J VT C143-C243 5263105420 5263102520 C.. POLY. 0.0068UF 100V J VT C148 OSC., CERAMIC 600KHZ CRI 5347011200 DIODE, 182473 DIODE, 18R139-200 T-31 DI01-DI08 5224012920 5224017120 D12 DIODE, ZENER RD4.7EL3 FR D13 5224573001 DIODE, ZENER RD3.0EL2 FR DIODE, ISSI33T-77 DIODE, ZENER RD22EL2 FR 5224571801 D15 -D 16 5224015020 5224577901 D17 DIODE, ZENER RD8.2EL2 FR 5224574701 D18 5224012920 D10DE, 1S2473 D19 DIODE, ISR139-200 T-31 D20 -D 23 \(\D 5224017120 \) △5228010700 SILION STACK, SIWB8(A)20 D24 D10DE, 1S2473 D27 5224012920 DIODE, ISRI39-200 T-31 JACK, PIN 4P D28 △5224017120 5330509600 L101 L201 5286025700 COIL, STEP UP COIL, CHOKE 220UH LALO4KB COIL, CHOKE 1000UH LALO4NA 5286031000 L102 5286031800 L103 COIL, OSC TOOKHZ L104 5286035900 PΙ 5336279400 PLUG, CONNECT 4P PLUG, CONNECT 20P IL-SDA-P PLUG, CONNECT 17P IL-SDA-P 5336281000 P2 5336280700 P3 PLUG, CONNECT TYC-B08P-II PLUG, CONNECT B04B-XH-A P4 5334055100 P5 5336245400 5336245600 PLUG, CONNECT BO6B-XH-A P6 5231761300 TRANSISTOR 2SD734F 01 5145133000 TRANSISTOR 2SC-1645 Q2 , Q -Q TRANSISTOR 2SD734F Q3 6 д5231761300 5230781120 TRANSISTOR 2SCI740SLN TRANSISTOR 2SCI740SLN Q7 5230781120 TRANSISTOR 2SC1740SLN TRANSISTOR 2SC1740SLN Q102,Q202 5230781120 Q103-Q104 5230781120 TRANSISTOR 2SA933SLN Q 105 5230019020 INCOMBUSTBLE 2W 36 OHM J INCOMBUSTBLE IW 47 OHM J △5241284210 Ŕ3 Δ5241274510 R 10 R., TRIMMER 4.7KB R50 R60 5280021100 R., TRIMMER, 47KB H. R51 R61 5280021700 R., TRIMMER 22KB H. R52 R62 5280021500 R., TRIMMER IOKB H. R53 R63 5280021300 5300051800 SW., PUSH 3GANG 2-2N S 101

MAIN PCB ASSY (V-670)

REF.NO.	PARTS NO.	DESCRIPTION
U4 U5 U6 U7 U8	52204 150 0 5232255720 5232254820 5232254820 5220813700	IC., BA6109, TRANSISTOR, DIGITAL TRANSISTOR, DIGITAL TRANSISTOR, DIGITAL TRANSISTOR, DIGITAL IC., UPD7537ACU DTA124ES
U9 U10 U11 U12 U14	△5220432200 △5220432900 △5220439800 5232255720 5242122800	IC.,M5F78MO7L IC.,M5F78MO7L IC.,L78LR05 TRANSISTOR,DIGITAL DTC124ES R.,ARRAY RYLS-3J223
U15 U101 U102,U202 U103 U104,U204	5220440100	TRANSISTOR, DIGITAL DTA124ES IC., UPC4570C FILTER, LOWP.100KHZ IC., HA12088ANT FILTER, LOWPASS 19.8KHZ
U105 U106 U107 U108,U208 U109,U209		IC.,BU4066B IC.,M5218L IC.,HA12088ANT FILTER,LOWPASS MPX R-888X FILTER,LOWPASS 19.8KHZ
U110 U111,U211 U112 U113 U115,U215	5232250900 5220430400	IC.,CXAII98AP FILTER,LOW PASS 100KHZ TRANSISTOR ARRAY BA6251 IC.,UPC1297CA TRANSISTOR,DIGITAL DTC124ES
UI 16, U2 16 UI 17-UI 18 UI 19 UI 20-UI 21 UI 23	5232253020 5232254820	TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTA143ES TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTC124ES

DISPLAY PCB ASSY (V-670)

REF.NO.	PARTS NO.	DESCRIPTION	
DI-DII FLI	*5200257100 *5210257100 5800809101 5224012920 5347004000		
J2 J3	5336281400 5336283000 5336282700 5283506800 5282414800	SOCKET, CONNECT 20P IL-SDA-S SOCKET, CONNECT 17P IL-SDA-S 3 BLOCKVR 9,100KAX2,5KB	
S10 S11	5302103200 5300916400 5302103200 5220041000 5232252800	SW.,TACT KHH10910 IC.,HA12067NT	
U3	5232252900	TRANSISTOR ARRAY LB1290	

MAIN PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
	*5200257500 *5210257500 5800990100 5783603008 5330509600	MAIN PCB ASSY (V-570) MAIN PCB (V-570) HEAT SINK SCREW, BIND P TITE M3X8 JACK,PIN 4P
C2 C3 C5 -C 6	5555590000 5173433000 12907112 12907088 ∆5260425510	PLATE.PCB EARTH A C.,CERAMIC 0.01UF 50V T CONDENSER CC 16V 10000PF 10% CONDENSER CC 50V 100PF 5% C.,ELEC. 330UF 50V M AS VT
C14 C15 C16	△5260308600 △5260428110 △5260427010 12907112 5263107720	CONDENSER CC 16V 10000PF 10%
CRI DIOI-DIO4 DIO5-DIO8 DIO9 DI2	5347011200 5224015020 5224012920 5224015020 5224017120	D10DE, ISS133T-77 D10DE, IS2473 D10DE, ISS133T-77
D13 D14 D15 -D16 D17 D18	5224573001 5224571801 5224015020 5224577901 5224574701	DIODE, ZENER RD3.0EL2 FR DIODE, ISSI33T-77 DIODE, ZENER RD22EL2 FR
D19 -D23 D24 D28 L101 L102	Δ5224017120 Δ5228010700 Δ5224017120 5286031000 5286031800) SILICON STACK,SIWB8(A)20) DIODE,ISRI39-200 T-31) COIL,CHOKE 220UH LAL04KB
L103,L201 L104 P1 P2 P3		O COIL,OSC 100KHZ O PLUG,CONNECT 4P O PLUG,CONNECT 20P IL-SDA-P
P4 P5 P6 Q1 Q2	5336245600 5336245300 5334055100 5231761300	D PLUG,CONNECT B03B-XH-A D PLUG,CONNECT TYC-B08P-11 D TRANSISTOR 2SD734F
Q3 Q4 -Q Q6 Q7 Q101,Q20	5231761300 5 5230781120 ∆5231761300 5230781120	TRANSISTOR 2SC1740SLN TRANSISTOR 2SD734F TRANSISTOR 2SC1740SLN
Q102,Q20 Q103,Q10 Q105 R3 R10		O TRANSISTOR 2SCI740SLN O TRANSISTOR 2SA933SLN O INCOMBUSTBLE 2W 360HM J FF
R51 R61 R52 R62 R53 R63	528002170 528002150 528002170	O R., TRIMMER 22KB H.

MAIN PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
R56 - R66 S12 U4 U5 U6 -U 7	5280021300 5300051700 5220411500 5232255720 5232254820	R.,TRIMMER 10KB H. SW.,PUSH 2GANG 2-2N IC.,BA6109 TRANSISTOR,DIGITAL DTC124ES TRANSISTOR,DIGITAL DTA124ES
U10 4	5220813700 5220432200 5220432900 5220439800 5232255720	IC., UPD7537ACU IC., M5F78MO7L IC., M5F78MO7L IC., L78LR05 TRANSISTOR, DIGITAL DTC124ES
U13 U14 U15 U101 U102,U202	5232254820 5242122800 5232254820 5220439600 5292806800	TRANSISTOR, DIGITAL DTA124ES R., ARRAY RYLS-3J223 TRANSISTOR, DIGITAL DTA124ES 1C., UPC4570C FILTER, LOWPASS 19KHZ
U103, U203 U104 U105, U205 U106, U206 U107, U207	5292805200 5220440100 5232255720 5232255720 5292805900	FILTER, LOWPASS 19.8KHZ IC., HA12088ANT TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTC124ES FILTER, LOW PASS 100KHZ
U108 U109 U110,U111 U113-U115 U116	5220439700 5232250900 5232253020 5232255720 5220430400	IC.,CXAI198AP TRANSISTOR ARRAY BA6251 TRANSISTOR DIGITAL DTA143ES TRANSISTOR,DIGITAL DTC124ES IC.,UPC1297CA
U117 U118,U120 U119	52204 16200 5232255720 5220439900	TRANSISTOR, DIGITAL DTC124ES

DISPLAY PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
DI-DIO FLI	*5200257600 *5210257600 5800809101 5224012920 5347004000	DISPLAY PCB ASSY (V-570) DISPLAY PCB (V-570) HOLDER, METER DIODE, 1S2473 FL DISPLAY, FIP60AW12Y
	5336281400 5336283000 5336282700 5283506800 5282414800	SOCKET, CONNECT 17P IL-SDA-
S10 U1	5302103200 5300916400 5220041000 5232252800 5232252900	

P.TRANS PCB ASSY

		Sans "	
	REF.NO.	PARTS NO.	DESCRIPTION
		*5200257300 *5200257310 *5200257320 *520025733 *5200257340 *5200257350	P.TRANS PCB ASSY [US,C] P.TRANS PCB ASSY [E] P.TRANS PCB ASSY [E] P.TRANS PCB ASSY [E]
		*5210257300 \$5320050700 \$5320050800 \$5320050900 \$5320051000	P. TRANSFORMER [J] P. TRANSFORMER [US,C] P. TRANSFORMER [US,C]
		5327007200 \$ 5128027000 \$ 5350010800 \$ 5350011700 \$ 5128047000 \$ 5350008300	CORD, AC UL SPT-1 [US, C, GE] CORD, AC CEE CLASS-2 [E] CORD, AC
Ş	050 14 550 55 I	△ 5267 7040 00 53 34049700 △ 530 005 1900 △ 53 320 19900	SOCKET, CONNECT. 8P

JACK PCB ASSY (V-670)

REF.NO.	PARTS NO.	DESCRIPTION
J7	*5200257200 *5210257200 5330011600	JACK PCB (1/.670)

JACK PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
	*5200257700 *5210257700 53 <i>3</i> 0011600	JACK PCB ASSY (V-570) JACK PCB (V-570) JACK, 3P YKB21-5010

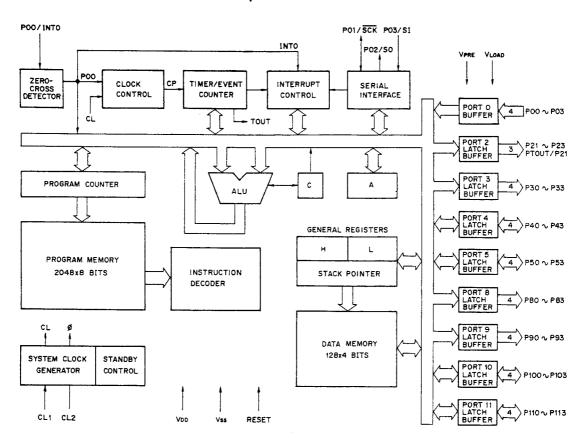
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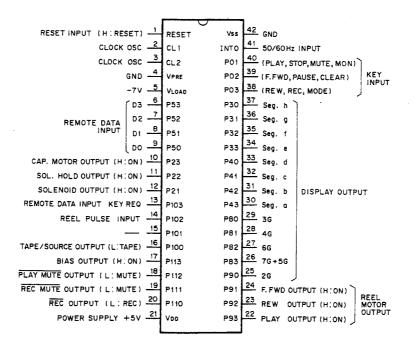
Parts marked with *require longer delivery time.

8 IC BLOCK DIAGRAMS

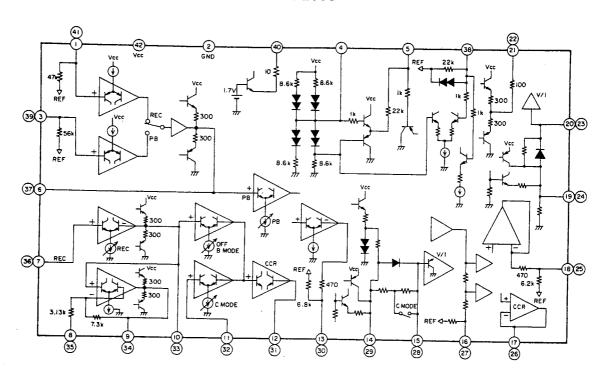
ICブロック・ダイヤグラム

µPD7537ACU

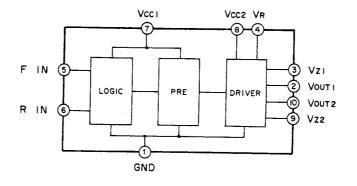




HA12088



BA6109



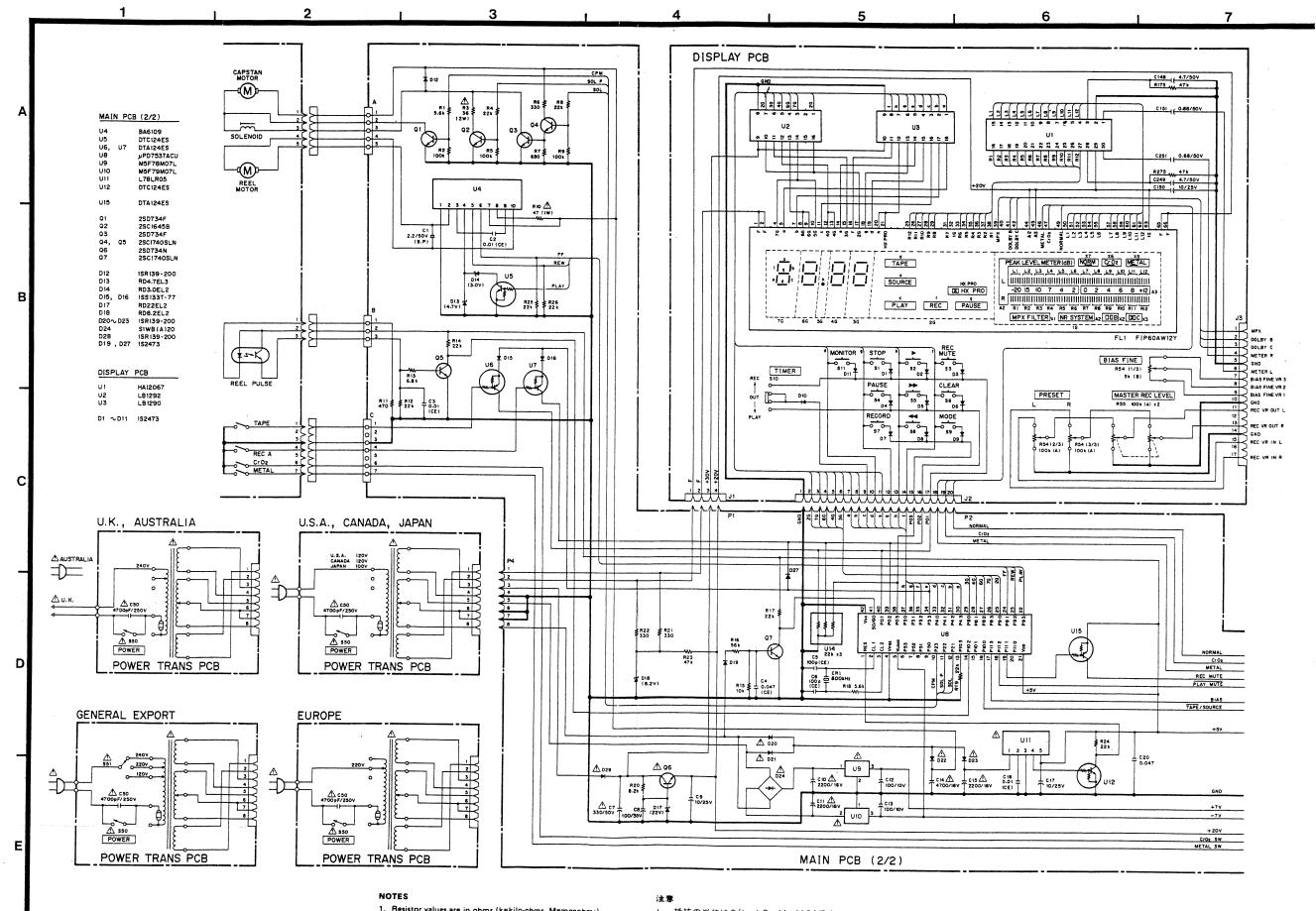
FIN	RIN	Vout 1	Vout 2
н	н	L	L
L	н	L	Н
H	L	Н	L
L	Ł	OPEN	OPEN



してくたさい.

to the appropriate parts list and ensure exact replacement.

1st Issue; September 1988



INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPLOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

1. Resistor values are in ohms (k=kilo-ohms, M=megohms)

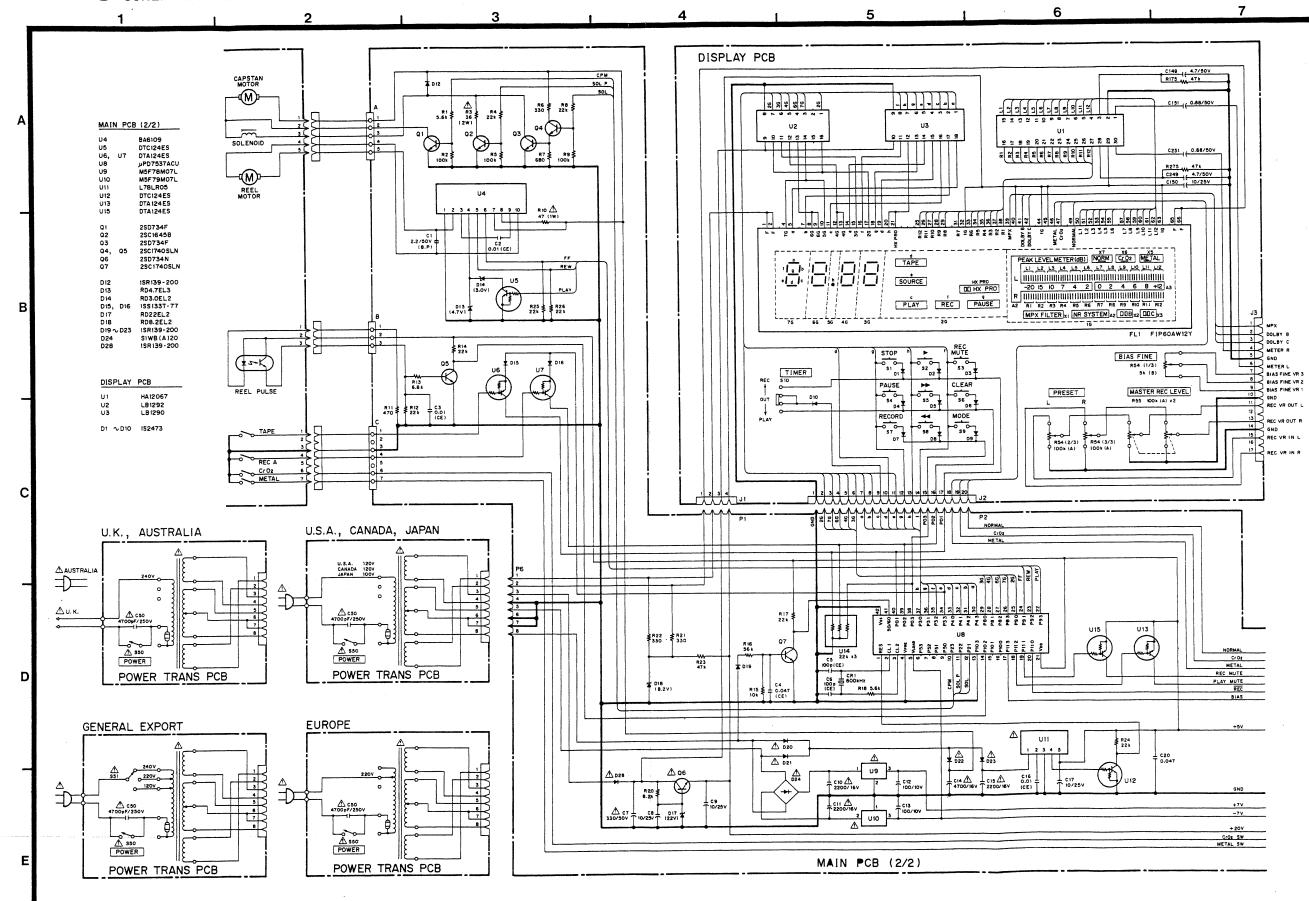
2. Capacitor values are in microfarads (p=picofarads).

3. A Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer. to the appropriate parts list and ensure exact replacement.

- I. 抵抗の単位はΩ(k=kΩ, M=MΩ)です。
- 2. コンデンサの単位は μ F(p=pF)です。
- 3. △マークのある部品は安全重要部品です。 交換するときは必すティアック指定の部品を使用

V-670 STEREO CASSETTE DECK

1st Issue; September 1988



INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPLOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT. 1. Resistor values are in ohms (k=kilo-ohms, M=megohms)

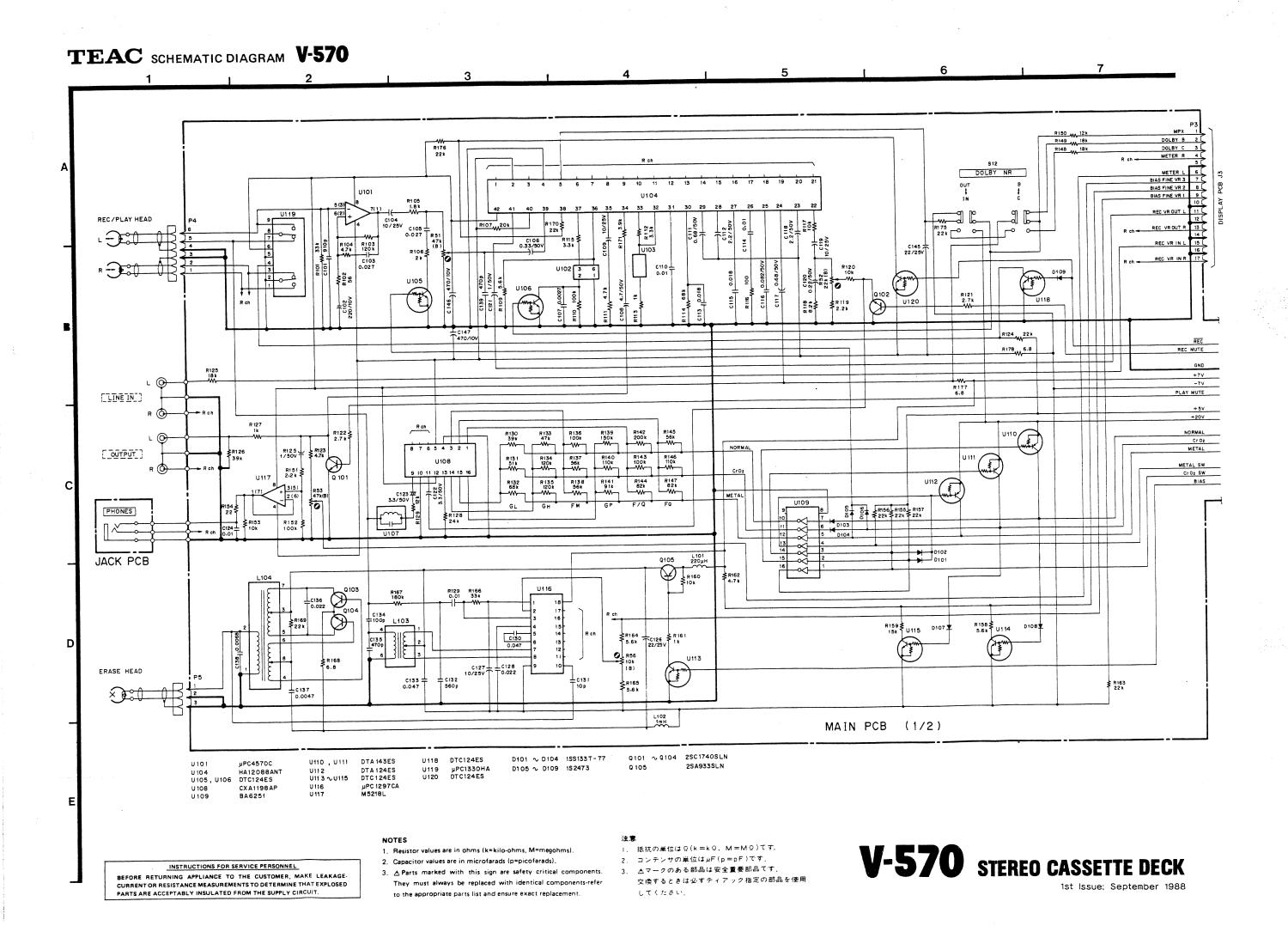
- 2. Capacitor values are in microfarads (p=picofarads).
- A Parts marked with this sign are safety critical components.
 They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

注意

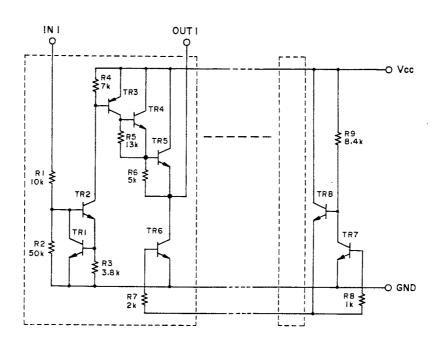
- 抵抗の単位はΩ(k=kΩ, M=MΩ)です。
- コンテンサの単位はμF(p=pF)です。
 Δマークのある部品は安全重要部品です。
- 交換するときは必ずティアック指定の部品を使用 してくたさい。

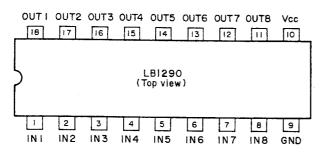
V-570 STEREO CASSETTE DECK

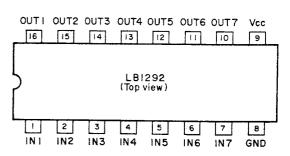
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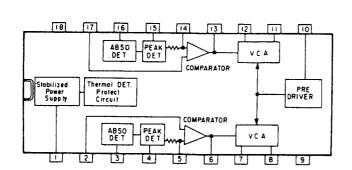
LB1290, LB1292







μPC1297CA



CXA1198AP

